DOCUMENT RESUME

ED 177 201 TM 009 699

AUTHOR Strand, Theresa; And Others
TITLE Exploratory Study of the Use of a Wide Range Reading Test with Model A in Title I Evaluation.
PUB DATE Apr 79
NOTE 18p.; Paper presented at the Annual Meeting of the American Educational Research Association (63rd, San Francisco, California, April 8-12, 1979); Tables marginally legible

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Achievement Gains; Compensatory Education Programs; *Content Analysis; Criterion Referenced Tests; Curriculum Evaluation; Evaluation Methods; Grade 2; Individual Tests; Models; *Norm Referenced Tests; Primary Education; Program Evaluation; Reading Achievement; *Reading Tests; Testing Problems; *Test Selection
IDENTIFIERS *Elementary Secondary Education Act Title I; Normal Curve Equivalent Scores; Out of Level Testing; *RMC Models; SRA Achievement Series; Woodcock Reading Mastery Tests

ABSTRACT

Use of the Woodcock Reading Mastery Tests (WRMT), individually administered wide ranging reading tests, was explored, using Title I evaluation Models A1 and A2. Attention was focused on: (1) relationship of the Title I curriculum to the WRMT and the SRA Reading Test; (2) comparative reading achievement gains on both tests, using Model A1; and (3) use of the WRMT with Models A1 and A2 and the identification of related problems. The subjects were 32 second grade students enrolled in a Title I language arts project. It was concluded that both tests measured reading comprehension, but that only the WRMT measured reading readiness skills. Language arts skills were measured only by the SRA Language Arts Tests. Significant differences in raw score and normal curve equivalent (NCE) gains were found for the Title I pupils on the WRMT and the SRA Reading Test, but it was not possible to interpret the NCE gains with respect to a national norms. Also, it was not possible to determine whether the WRMT could eliminate floor and ceiling test effects. It was concluded that the WRMT, as administered, was not appropriate for use with Model A2. (Author/MH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED177201

EXPLORATORY STUDY OF THE USE OF A WIDE RANGE READING TEST WITH MODEL A IN TITLE I EVALUATION

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Theresa Strand and Charles C. Anderson
Educational Testing Service
Evanston, Illinois

E. Jane Sauer, Title I Supervisor
Merrill Area Public Schools
Merrill, Wisconsin

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Theresa Strand

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

April 1979

Paper presented at the
Annual Meeting of the American Educational Research Association
San Francisco, CA: April 8-12, 1979

TM009 699

EXPLORATORY STUDY OF THE USE OF A WIDE RANGE READING TEST WITH MODEL A IN TITLE I EVALUATION

Objectives

The purpose of this study was to explore the use of an individually administered, wide range reading test in Title I evaluation: with Model A1, as the nationally normed test, and with Model A2, as the non-normed/criterion-referenced test. In conducting this small scale exploratory study, attention was focused on the following areas: (1) the comparative relationship of the Title I project curriculum to the wide range reading test and the nationally normed standardized reading achievement test, administered within the same fall-to-spring evaluation time frame, (2) the comparative reading achievement gains obtained with use of these two tests with Model A1 in Title I evaluation, (3) the use of the wide range test with Model A1 and the identification of related problems, and (4) the use of the wide range test with Model A2 and the identification of related problems.

Perspective

In response to Section 151 of the 1974 Education Amendments to the Elementary and Secondary Act of 1965, three evaluation models were developed to determine the effectiveness of Title I programs in reading, language arts, and mathematics. It was anticipated that the evaluation models would meet the evaluation needs of local school districts and, at the same time, provide aggregative data for judging the overall impact of the Title I program at the state and national levels.

Each of the three evaluation models (norm-referenced, control group, and regression) provides two alternatives for estimating the expected post-test performance of pupils in the Title I project: through administration

of a nationally normed standardized achievement test or a non-normed/criterion referenced test. However, an additional administration of a nationally normed test is required with the latter alternative, so that raw scores on the non-normed test may be referenced to the percentile rank scores of the national norm group.

The new Title I evaluation system stresses the use of functional level tests for Title I pupils to avoid test floor and ceiling effects and to more accurately reflect achievement gains. In-level interpretation of results from out-of-level tests administered to Title I pupils is provided through the use of expanded standard (scaled) scores or empirical out-of-level norms, such as those of the Gates MacGinitie Reading Tests.

The vast majority of school districts currently implementing the Title I evaluation models are using Model A1, the norm-referenced model, which utilizes a nationally normed, standardized achievement test. However, districts have experienced difficulty in selecting the appropriate functional level test, particularly when their Title I pupils are achieving below actual grade placement. Interest has been expressed at the district level in the use of a wide range reading test, the Woodcock Reading Mastery Tests. The use of a wide range test with Model A, if relevant to the Title I project curriculum, could eliminate difficulty with test level selection.

The Woodcock Reading Mastery Tests (WRMT) is a one-level test, designed for individual administration to pupils in kindergarten through grade 12. The 400 items on the test comprise five separate subtests which were calibrated through Rasch-Wright procedures. There is a separate score for each of the five subtests and a total reading score. Basal and ceiling criteria are used to establish the critical range of the test for pupils

who are tested only with those items appropriate to their levels of achievement.

The WRMT was originally normed in May, 1971 and 1972, with a sample of 5,252 subjects in kindergarten through grade 12, from 50 school districts in 20 states. A nationwide renorming study of the WRMT was conducted in October, 1977, and April, 1978, for grades 2-6, in response to the expressed needs of districts who wished to use the test with Model Al in fall-to-spring testing. The norms tables provide direct raw score to NCE score conversions for the total test and for each of the subtests, by grade level (2-6) and for October and April testing. However, information concerning the standardization sample and sampling procedures for the 1977-78 supplementary norms has not yet been published.

Data Source

The data for this study consisted of the 1977-78 fall and spring test scores of 32 second grade pupils enrolled in the Title I project, "Language Experiences," conducted in seven elementary schools in the Merrill Area Public Schools, Merrill, Wisconsin. In September and April of the 1977-78 school year, the Title I pupils were administered the Woodcock Reading Mastery Scores, Form A, and the Reading Test of the SRA Achievement Tests (SRAAT), Primary Level I, Form F, 1971 test edition. The SRAAT is a nationally normed standardized achievement test battery and the Primary I test level has empirical fall and spring norms for second grade. Also, in a few schools, the SRA Language Arts Test, Primary I, Form F, was administered to the Title I pupils.

Methods and Techniques

The evaluation methods and techniques used for each of the four areas of concern in this small scale exploratory study were as follows:

1. Comparative Content Analysis of the Title I Curriculum and Tests Used

   -A content analysis was conducted for the Title I project curriculum.

   -A content analysis was conducted for the WRMT and the Primary I level, Form F, of the SRA Reading Test and the Language Arts Test.

   -A taxonomy which spanned curriculum and test content was used to ascertain the extent to which the curriculum was measured by the above tests.

2. Comparative Reading Achievement Gains on the WRMT and the SRA Reading Test

   -Total group raw score statistics were calculated for the 32 Title I pupils who had both pre- and posttest scores on the WRMT and the SRA Reading Test; statistics for each test included the pre- and posttest range, mean, standard deviation, pre-posttest correlation, and the t-test of significance of the mean reading achievement gain.

   -Total group NCE score statistics were calculated for the 32 pupils who took the WRMT and the SRA Reading Test; statistics included pre- and posttest means, standard deviations, NCE gain/loss, and t-tests of significance of mean reading achievement gain.

3. Use of WRMT With Model A1 and Identification of Related Problems

   -A comparison of the total group test statistics of the 32 Title I pupils and the WRMT October, 1977, and April, 1978, norms groups was made: statistics included raw score means and standard deviations and NCE means and NCE gain/loss for Total Reading and each of the five reading subtests.

4. Use of WRMT With Model A2 and Identification of Related Problems

   -Intercorrelations were calculated for the pretest and posttest raw scores of the 32 pupils on the WRMT and the SRA Reading Test. The obtained correlation coefficient of .6 on the two posttests was adequate for implementation of the WRMT with Model A2.

   -Frequency distributions and medians were calculated for the SRAAT posttest and the WRMT pre- and posttest.

Findings

Comparative Content Analysis of the Title I Curriculum and the Tests Used.

In order to compare the content of the two tests used in the evaluation, a basic reading taxonomy was adapted from Hoepfner (1976). This taxonomy provided for a comparison of the reading tests at a fairly general level of content differences. Inasmuch as the instructional objectives of the Title I program was organized in broad content areas, the taxonomy was also well suited for describing the Title I curriculum.

An overview of the comparative content of the Title I curriculum and the WRMT and the SRA Reading Test and Language Arts tests (Primary I Level, Form F) is presented in Table 1, below. Results of the content analysis indicated that the curriculum was not completely measured by any of the three tests.

The overlap of the WRMT and the SRA Reading Test occurred in the content area, "reading with understanding." The WRMT provided a potential 89 items (number of test items at the 99 NCE for grade 2, Form A, April norms--in "Supplementary Norms Tables: Grades 2-6, Normal Curve Equivalents") and the SRA Reading Test provided 43. The WRMT provided a potential 212 items in the "reading readiness" area. The SRA Language Arts Test provided 63 items relating to language arts skills.

More detailed information is presented in Tables 2, 3, and 4, for the WRMT, SRA Reading Test, and SRA Language Arts Test, respectively. These

TABLE 1

OVERVIEW OF COMPARATIVE CONTENT OF TITLE I PROJECT CURRICULUM AND TESTS USED FOR EVALUATION

Content Area	Related Skill Areas	Title I Project Curriculum	Number of Test Items		
			WRMT	SRAAT-Rdg	SRAAT-Lang Arts
Reading Readiness	Listening and Speaking	X			
	Visual and Auditory Discrimination and Recognition	X	45/ 45 (LI)* 119/150 (WI)**		
	Word Attack Skills	X	48/ 50		
Reading with Understanding	Recognition of Word Meanings	X	39/ 70	23	
	Reading Comprehension	X	50/ 85	15	
	Reading Interpretation			5	
Language Arts	Alphabetization	X			7
	Capitalization	X			11
	Punctuation	X			9
	Spelling	X			20
	Usage	X			16

Note: Number of WRMT test items indicates the number at the 99 NCE for second grade April norms, in relation to the total number of available test items in each of the five WRMT subtests.

*Letter Identification Test

**Word Identification Test

TABLE 2

ANALYSIS OF WOODCOCK READING MASTERY TESTS (WRMT), 1973

Publisher: American Guidance Service, Inc.

Description: A 400 item wide range reading test which measures reading achievement in five areas. Scores are available for each of the five reading subtests and for total reading. The test is designed for individual administration to pupils in grades 1-12.

Response Format: The examiner administers the test using a two-sided easel which simultaneously allows presentation of the test items to pupils on one side, and on the other side, provides the examiner with instructions, a copy of the items, and a key to acceptable answers. The examiner records the pupil's responses on a separate six-page response booklet.

Content Areas or Subtests	Specific Skill Areas	Total Number of Items	Percent of Total Items	
Letter Identification	Measures ability to name letters of alphabet. Samples 8 classes of letter forms: upper and lower case Roman, sans serif, cursive, and specialty types. The letter items are arranged in order of difficulty within the test and pupil's task is to name each letter.	45	11.2%	Reading Readiness
Word Identification	Words range in difficulty from beginning grade 1 to end of grade 12. Pupil's task is to name the word. There is no assumption that the pupil knows the meaning of the word nor that he has seen the word before.	150	37.5	Reading Readiness
Word Attack	Items which are arranged in order of difficulty measure the pupil's ability to identify nonsense words through the application of phonic and structural analysis skills.	50	12.5	Reading Readiness
Word Comprehension	Measures pupil's knowledge of word meanings through use of an analogy format. Each item consists of a double pair of analogies. The pupil's task is to read the first pair of words in the item, then read the first word of the second pair, and tell the word which would complete the analogy.	70	17.5	Reading With Understanding
Passage Comprehension	The pupil's task is to read silently a passage which has a word missing and then tell an appropriate word to go in the space.	85	21.2	Reading With Understanding
TOTAL READING SCORE	Composite index of overall reading skill.	400	100.0%	

Note: Percent column total may not equal 100 percent due to statistical rounding.

TABLE 3

ANALYSIS OF SRA ACHIEVEMENT TESTS (SRAAT), 1971
PRIMARY LEVEL I, FORM F, READING TEST

Publisher: Science Research Associates, Inc.

Description: A 43 item reading test which is part of a battery of nationally normed standardized achievement tests of general academic progress from grades 1-9.

Response Format: Pencil-and-paper test booklet; Multiple choice test items with 3 or 4 options.

Content Areas	Specific Skill Areas	Total Number of Items	Percent of Total Items
Reading Comprehension	Sentence-Picture: Select a picture that correctly depicts a given sentence.	5	11.6%
	Restate Material: Recognize a restatement of material that is explicitly stated in the passage. Select a specific detail that is stated in the passage.	5	11.6
	Gather Information: Select a correct statement about information that appears in more than one place in the story.	5	11.6
	Read Beyond the Story: Recognize material that is implied but not specifically stated in the passage. Recognize a character's motivations and emotions. Select probable reasons for action.	5	11.6
Reading Vocabulary	Word-Picture: Select the picture that best corresponds to a given word.	5	11.6
	Single Meaning: Select the correct definition of a word that has only one meaning.	13	30.2
	Multiple Meaning: Select the correct definition of a word that has more than one meaning.	5	11.6
TOTAL READING SCORE	Composite index of reading	43	100.0%

Reading With Understanding

Note: Percent column total may not equal 100 due to statistical rounding.

TABLE 4

ANALYSIS OF SRA ACHIEVEMENT TESTS (SRAAT), 1971:
PRIMARY LEVEL I, FORM F, LANGUAGE ARTS TEST

Publisher: Science Research Associates, Inc.

Description: A 63 item language arts test which is part of a battery of nationally normed standardized achievement tests of general academic progress from grades 1-9.

Response Format: Pencil-and-paper test booklet; multiple choice test items with 2, 3 or 4 options.

Content Areas	Specific Skill Areas	Total Number of Items	Percent of Total Items
Language Arts: Usage *(Tests audio-visual recognition of correct grammar rather than knowledge of grammatical rules.)*	Alphabetization: Recognize which letter or word comes first alphabetically.	7	11.1%
	Capitalization: Recognize and select correct capitalization in a variety of situations.	11	17.5
	Punctuation: Select periods, question marks, and exclamation points used correctly at ends of sentences. Choose correctly used commas and apostrophes in various kinds of sentences. Recognize a situation in which no punctuation is needed.	9	14.3
	Pronoun Usage: Recognize and select examples of correct grammar using pronouns, with special attention to subject redundancy, pronoun-antecedent agreement, and pronoun case. Recognize and select examples of correct grammar using pronouns, with special attention to subject redundancy, pronoun-antecedent agreement, and pronoun case.	4	6.3
	Verb and Sentence Usage: Recognize and select examples of correct grammar using verbs, with special attention to subject-verb agreement and verb tense.	6	9.5
	Adjective-Adverb: Recognize and select examples of correct grammar using adjectives and adverbs. Choose between problem words such as hour, our; pare, pair, pear; to, two, too.	6	9.5
Language Arts: Spelling	Sounds and Letters: Recognize correct and incorrect spelling, with special attention to letters and letter combinations that have corresponding sounds.	11	17.5
	Vowels: Recognize correct and incorrect spellings with special attention to digraph errors and reversals and to vowel omissions and additions.	6	9.5
	Consonants: Recognize correct and incorrect spellings with special attention to double consonant errors and transpositions.	3	4.8
TOTAL LANGUAGE ARTS	Composite index of language arts achievement.	63	100.0%

Language Arts

tables provide additional in-depth information including a capsule description of the test, response format, number and percent of items in each specific skill area, and the types of items included in each skill area.

Comparative Reading Achievement Gains on the WRMT and the SRA Reading Test. Total raw score statistics of the 32 Title I second grade pupils are presented in Table 5, below.

TABLE 5

TOTAL GROUP RAW SCORE STATISTICS FOR
SECOND GRADE TITLE I PUPILS (N=32)

Test	No. of Items	Range		Fall		Spring		t	Pre-Post Corr.
		Pre	Post	Mean	SD	Mean	SD		
WRMT	301/400	38-125	91-225	69.6	25.4	158	35.5	18.23***	.64
SRATT: RDG	43	5- 28	9- 36	17.6	6.0	27.4	6.4	7.55***	.30

***p ≤ .001

Inasmuch as the WRMT, as a wide range test which covers a span of grades, is a much longer test, it could be expected that the range of raw scores on both pretest and posttest as well as means and standard deviations would be larger than that of the SRA Reading Test. However, the range of scores on both tests was larger for the posttest than for the pretest. A significant difference in raw score gain was found for each of the two tests, using the t-test for correlated samples.

Table 6, on the following page, displays the comparative NCE means, standard deviations, and NCE gain/loss of the 32 pupils on the two tests. A significant difference in NCE gain was found for each of the two tests, using the t-test for correlated samples. A comparison of the NCE gains on the two tests is not considered appropriate because of differences in test

TABLE 6

FALL AND SPRING MEAN NCE AND NCE GAIN/LOSS
FOR SECOND GRADE TITLE I PUPILS (N=32)

Test	Fall Mean	Fall SD	Spring Mean	Spring SD	NCE Gain/Loss	t
WRMT	33.8+	14.5	39.8	13.8	6.0	2.71*
SRAAT: RDG	37.0	17.6	44.7	11.8	7.7	2.38**

+Interpolated for September testing.
*p ≤ .05;

content and potential differences in norming samples for the two tests, inasmuch as published information is currently unavailable concerning the WRMT 1977-78 norming studies. Norms provide a frame of reference for the interpretation of scores. In considering the importance of norms, Ghiselli (1964, p.89) emphasized:

> ...norms provide the basis for giving meaning to scores and for comparing the scores earned by different individuals on the same test or the scores earned by one individual on different tests. The adequacy with which scores can be interpreted, then, is a direct function of the adequacy of the norms. Therefore, the group on which norms are established is a matter of considerable importance.

Use of WRMT With Model A1 and the Identification of Related Problems. A nationwide renorming study of the WRMT was conducted in October,1977, and April,1978,for grades 2-6. The new scoring procedures on the WRMT vary from the previously established scoring procedures which related pupils' mastery scores to percentile rank scores for grade level and time of year. The new scoring procedures established for use in Title I evaluation involve direct conversion of raw scores to NCE scores for each of the five subtests and the sum of the five subtest scores to a total reading NCE score.

In comparing the mean scores of the Title I group to the nationwide WRMT norms group, two types of comparisons were made: (1) between raw score

means, standard deviations, and gain (Table 7) and between NCE means, standard deviations, and NCE gain/loss (Table 8).

With only one exception (Letter Identification), the Title I group's mean raw scores were lower than the norms group on the five subtests and total reading test. Also, as might be anticipated in a lower achieving group, the standard deviations were smaller than for the norms group, due to restriction of range.

The NCE loss of the national norms group indicated that the norms group did not maintain its NCE status from fall to spring in second grade--there is an NCE loss of 1.1 to 6.6 across the subtests and total reading scores. The comparative NCE gains of the Title I group exceeded that of the WRMT nationwide norms group.

In exploring the use of a wide range test, such as the WRMT, for Title I evaluation, it was of interest to determine whether floor and ceiling test effects would be eliminated. In the study reported here, it was difficult to determine. In considering lack of discrimination of a test, Hoepfner (1976, p. 47) advised that "...if a score of zero is equivalent to a percentile rank of five, then five percent of the sample received no points on this test and there was no discrimination among the lowest five percent of the students."

On the WRMT, Form A, for second grade in October, a raw score of zero on the Word Attack subtest was equivalent to an NCE score of 26 (13th percentile) and on the Word Comprehension subtest to an NCE of 15 (5th percentile). Also, total reading test scores of 36 and below were equivalent to the first NCE (and percentile) in October and total reading test scores of 83 and below were equivalent to the first NCE (and percentile) in April.

Although only one of the second grade pupils in this study scored below 36 on total reading, it is possible that lower achieving students at the

Table 7

COMPARISONS BETWEEN RAW SCORE MEANS AND STANDARD DEVIATIONS AND RAW SCORE GAIN OF SECOND GRADE TITLE I PUPILS AND WRMT, FORM A, NORMS GROUPS ON TOTAL READING AND READING SUBTESTS

TABLE 7a. TOTAL READING (400 ITEMS)

Group	N	Fall-RS Mean	Fall-RS SD	Spring Mean	Spring SD	Raw Score Gain
Title I	32	69.2	25.4	158.	35.5	88.4
Norms	524 (Fall)	116.7	59.1			
	316 (Spring)			179.9	53.2	63.2

TABLE 7b. LETTER IDENTIFICATION (45 ITEMS)

Group	N	Fall-RS Mean	Fall-RS SD	Spring Mean	Spring SD	Raw Score Gain
Title I	32	32.2	3.1	38.3	3.2	6.1
Norms	524 (Fall)	33.6	3.1			
	316 (Spring)			37.5	4.6	3.7

TABLE 7c. WORD IDENTIFICATION (150 ITEMS)

Group	N	Fall-RS Mean	Fall-RS SD	Spring Mean	Spring SD	Raw Score Gain
Title I	32	21.7	15.1	63.3	16.8	41.6
Norms	524 (Fall)	46.1	28.7			
	316 (Spring)			74.8	21.8	28.7

TABLE 7d. WORD ATTACK (50 ITEMS)

Group	N	Fall-RS Mean	Fall-RS SD	Spring Mean	Spring SD	Raw Score Gain
Title I	32	4.3	5.6	20.1	9.3	15.8
Norms	524 (Fall)	12.0	12.7			
	316 (Spring)			22.2	13.7	10.2

TABLE 7e. WORD COMPREHENSION (70 ITEMS)

Group	N	Fall-RS Mean	Fall-RS SD	Spring Mean	Spring SD	Raw Score Gain
Title I	32	4.0	3.9	16.9	6.0	12.9
Norms	524 (Fall)	10.3	8.8			
	316 (Spring)			19.1	9.2	8.8

TABLE 7f. PASSAGE COMPREHENSION (85 ITEMS)

Group	N	Fall-RS Mean	Fall-RS SD	Spring Mean	Spring SD	Raw Score Gain
Title I	32	7.2	3.7	22.3	7.4	15.1
Norms	524 (Fall)	15.6	10.7			
	316 (Spring)			26.4	9.9	10.8

Table 8

COMPARISONS BETWEEN NCE MEANS AND NCE GAIN/LOSS OF SECOND GRADE TITLE I PUPILS AND WRMT, FORM A, NORMS GROUPS ON TOTAL READING AND READING SUBTESTS

TABLE 8a. TOTAL READING (400 ITEMS)

Group	N	Fall Mean NCE	Spring Mean NCE	NCE Gain/Loss
Title I	32	33.7	38.6	4.9
Norms	524 (Fall)	53.0		
	316 (Spring)		46.9	-6.1

TABLE 8b. LETTER IDENTIFICATION (45 ITEMS)

Group	N	Fall Mean NCE	Spring Mean NCE	NCE Gain/Loss
Title I	32	37.4	49.7	12.3
Norms	524 (Fall)	48.8		
	316 (Spring)		44.0	-4.8

TABLE 8c. WORD IDENTIFICATION (150 ITEMS)

Group	N	Fall Mean NCE	Spring Mean NCE	NCE Gain/Loss
Title I	32	32.0	37.8	5.8
Norms	524 (Fall)	52.1		
	316 (Spring)		51.0	-1.1

TABLE 8d. WORD ATTACK (50 ITEMS)

Group	N	Fall Mean NCE	Spring Mean NCE	NCE Gain/Loss
Title I	32	38.4	47.1	8.7
Norms	524 (Fall)	55.0		
	316 (Spring)		49.2	-5.8

TABLE 8e. WORD COMPREHENSION (70 ITEMS)

Group	N	Fall Mean NCE	Spring Mean NCE	NCE Gain/Loss
Title I	32	36.8	45.6	8.8
Norms	524 (Fall)	51.3		
	316 (Spring)		48.2	-3.1

TABLE 8f. PASSAGE COMPREHENSION (85 ITEMS)

Group	N	Fall Mean NCE	Spring Mean NCE	NCE Gain/Loss
Title I	32	35.6	41.0	7.0
Norms	524 (Fall)	54.6		
	316 (Spring)		48.0	-6.6

same grade level elsewhere could encounter the floor of the test. Determination of ceiling effects was precluded by the grade level of the pupils in this study.

Use of WRMT With Model A2 and Identification of Related Problems. The procedures for implementing Model A2 require a minimum correlation of .6 on the criterion-referenced test and the nationally normed standardized test administered at pretest or posttest. Table 9 below, displays intercorrelation coefficients on the WRMT and SRAAT pretests and posttests.

TABLE 9

INTERCORRELATIONS BETWEEN PRE- AND POSTTEST RAW SCORES OF SECOND GRADE TITLE I PUPILS (N=32)

Tests	WRMT Pre (1)	WRMT Post (2)	SRAAT Pre (3)	SRAAT Post (4)
(1) WRMT Pre	-	.64	.30	.58
(2) WRMT Post		-	.43	.59
(3) SRAAT: Pre RDG			-	.30
(4) SRAAT: Post RDG				-

It was hypothesized that the low correlation coefficient between the pre- and posttest on the SRA Reading Test was related to the more formal group testing situation of a standardized achievement test administered to second graders very early in the school year and the administration of two different tests during the same relative period of time.

The obtained correlation coefficient of .6 on the two posttests was adequate for implementation of the WRMT with Model A2, using the SRA Reading Test as the nationally normed, standardized achievement test. Frequency distributions and medians were calculated for the SRA Reading Test and the WRMT

pretest and posttest. However, it was not possible to calculate NCE gain using Model A2 because there was no cumulative frequency on the WRMT pretest score distribution that corresponded to the median raw score value on the WRMT posttest.

Conclusions

The Woodcock Reading Mastery Tests, an individually administered battery of five wide range reading subtests, is widely used as a helpful educational tool for diagnosing and grouping pupils for instructional purposes as well as for selection for Title I programs. Its use in Title I evaluation was explored using Model A1 and Model A2 with the pretest and posttest scores of 32 second grade pupils enrolled in a Title I project, "Language Experiences," conducted in the Merrill Area Public Schools in Wisconsin during the 1977-78 school year. The Title I pupils were tested with the SRA Reading Test as part of the districtwide testing and with the Woodcock Reading Mastery Tests as part of the Title I project testing. The Title I teachers who administered the WRMT found the diagnostic information provided by the test to be very useful for instructional planning for their pupils.

Major considerations in selecting a test for use with Model A1 are: (1) content, and (2) adequacy and representativeness of the national norms group. Content analysis conducted for the WRMT and the SRA Reading and Language Arts tests and the curriculum received by the Title I pupils indicated that both the WRMT and the SRA Reading Test measured, "reading for understanding," but that only the WRMT measured reading readiness skills; language arts skills were measured only by the SRA Language Arts Test. It was concluded that although the WRMT measured two major areas of the curriculum, it did not measure language arts skills, an important component of the curriculum. Also, this content area was not measured by the SRA Reading Test.

Significant differences in raw score and NCE gains were found for the Title I pupils on both the WRMT and the SRA Reading Test. However, because published information was not yet available on the 1977-78 norming studies of the WRMT, it was not possible to interpret the NCE gains within a national frame of reference. Also, it was not possible to determine whether use of the WRMT could eliminate floor and ceiling test effects. The results of the present study suggested that lower achieving second grade pupils than those in the study might experience test floor effects.

Insufficient overlap on the distributions of the WRMT pretest and posttest indicated that the test as administered was not appropriate for use with Model A2.

References

Ghiselli, E. Theory of psychological development. New York: McGraw-Hill, 1964.

Hoepfner, R. Achievement test selection for program evaluation. Paper presented the USOE Invititational Conference on Achievement Testing of Disadvantaged and Minority Students for Educational Program Evaluation, Reston, VA, 1976.